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CELTIC TRADITIONS AND ANTHROPOLOGY.

Celtic Folk-lore, Welsh and Manx. By John Rhys, M.A., D.Litt., Hon. LL.D. of the University of Edinburgh, Professor of Celtic, Principal of Jesus College, Oxford. 2 vols., paged consecutively. Pp. xlvi + 718. (Oxford : Clarendon Press, 1901.) Price 21s.

PROF. RHYS has done well to republish, in these two handsome volumes, the collections of Celtic Folk-lore contributed by him to the pages of *Y Cymroddor* and the *Transactions* of the Folk-lore Society. For not only are they thus rendered accessible to a larger number of readers, but he has enriched them with considerable additions, and a valuable commentary. Had he seen his way to recast the original articles, with a view to a more complete classification of their contents, it would have avoided some repetition, and would have set the relations of the various tales in a clearer light. But we must be grateful for the work in its present form. To recast the articles would have been a troublesome process, and perhaps no classification would have been entirely satisfactory. Moreover, we should certainly have missed in any such rearrangement much of the genial charm of the collections as they first came from his pen, derived from the personal narrative of the collector. To a large number of his readers this would have been a sacrifice they might not be willing to make, even for the sake of theoretical order. When, however, the severely virtuous student, who, intent only on what he is to learn, would have preferred to make this or any other sacrifice, has calmed his ruffled feelings and settled down to his task of learning, he will speedily realise how important a contribution to anthropology, and in particular to Celtic archaeology, he has before him.

The chief intent which runs through the commentary is to determine so far as possible the race-elements that have gone to fashion the composite people of Wales, now so thoroughly welded together in historical memories and in political, religious and artistic aspirations. To this Prof. Rhys makes the whole of his collection subservient. Though he modestly disclaims the title of "folk-lorist," no living man has probably so wide a knowledge of the folk-lore of his native country, and certainly none has brought to its elucidation a scholarship so profound. His open-mindedness and candour are as remarkable as his scholarship. Consequently the present work is greatly in advance of his Hibbert Lectures as an exposition of the origin and real meaning of Celtic traditions. His theory, as summed up in the final chapter, is that in these traditions we have traces of at least two pre-Celtic races : first, a dwarf population inhabiting underground dwellings, and at a level of civilisation no higher than that of the present-day inhabitants of Central Australia ; and secondly, the enigmatical people over whom Monk barns and his guest fought with so much vigour, the Picts, "whose affinities appear to be Libyan, possibly Iberian." That a dwarf race was widely spread over this island cannot be questioned. Whether the beehive huts of Scotland and Ireland belonged to them is not quite so certain. In Roman times, and in the south

of what is now England, they occupied ordinary wattle-and-daub huts. Prof. Rhys attributes wholly or partially to them birth-stories like those of Cuchulainn and Etain, of which the chief characteristics are virgin-birth and reincarnation. He acutely points out that in the Cuchulainn story we have "two social systems face to face in Ulster," one of which recognised fatherhood, while the other did not. But alike the story-incidents and the corresponding superstitions are known practically all over the world. It is therefore impossible to fix the dwarf-race with responsibility for them. Besides, upon his own showing, the social organisation of the Picts was founded upon mother-right, and it is to the Picts that Scottish tradition assigns the mounds as dwellings.

In my opinion folk-lore seldom yields trustworthy evidence of race. What it does yield is evidence, often of the most decisive weight, of social states, of belief and practice. That the Welsh are descended from a people who were organised on the basis of mother-right, and believed in transformation, Prof. Rhys has rendered fairly certain from the traditions embodied in their literature, or found by himself in the mouths of the peasantry. Whence the organisation and belief in question were derived must be discovered, if at all, from evidence of another kind, that is to say, from philology and archaeology. With the aid of his rare philological learning the author has illuminated many a dark place in the *Mabinogion* and in the folk-tales, though he has failed to solve the riddle which would, perhaps, tell us more of the origin of the fairies and of the descent of the Cymric people than any other incident in the stories, namely, the riddle of the non-Welsh names Penelope, Belene and others attributed to the fairy heroines of so many Welsh tales.

If, however, the folk-tales of the present day fail to yield sure evidence of race, some of those embodied in the *Mabinogion* do. But it is to be obtained rather in the names than in the incidents. It is common ground, for example, between Welsh and Irish Celts, that there is a Goidelic element in the *Mabinogion*. The question is whether the stories were imported ready-made from Ireland, or grew on the soil of Wales and were adopted and adapted by the Cymric-speaking Celts from the Goidelic and Goidelised peoples they found in occupation of the country when they invaded it. The chapter on place-name stories (and in particular Prof. Rhys' analysis of the Hunting of the Twrch Trwyth) has gone far to settle this question. It must now be held, as the better opinion, that the *Mabinogion* stories which point most strongly to Irish influence, or indeed Irish origin, were taken over from the Goidelic substratum of the nation.

It would be easy to linger on many a delightful page of these fascinating volumes. Prof. Rhys always writes with humour. His gravest discourses are tempered with a smile. But, for all that, they are none the less grave in purpose. He has done more than any other man to rouse in his fellow-countrymen an intelligent interest in their history, language and literature. In conjunction with Mr. Brynmor Jones he has placed the study of Welsh history and institutions at last on something like a sound basis. So here he begins by laying down the maxim that—

"the history of no people can be said to have been written so long as its superstitions and beliefs in past times have not been studied ; and those who think that the legends here recorded are childish and frivolous, may rest assured that they bear on questions which could not themselves be called either childish or frivolous."

Further on he returns to the subject :

"With regard to him," he says, " who looks at the collecting and the studying of folk-lore as trivial work and a waste of time, I should gather that he regards it so on account, first perhaps, of his forgetting the reality their superstitions were to those who believed in them ; and secondly, on account of his ignorance of their meaning. As a reality to those who believed in them, the superstitions of our ancestors form an integral part of their history. However, I need not follow that topic further by trying to show how ' the proper study of mankind is man,' and how it is a mark of an uncultured people not to know or care about the history of the race. So the Roman historian, Tacitus, evidently thought ; for, when complaining how little was known as to the original peopling of Britain, he adds the suggestive words *ut inter barbaros* 'as usual among barbarians.' Conversely, I take it for granted that no liberally educated man or woman of the present day requires to be instructed as to the value of the study of history in all its aspects, or to be told that folk-lore cannot be justly called trivial, seeing that it has to do with the history of the race—in a wider sense, I may say, with the history of the human mind and the record of its development."

There are many scientific men who need to lay to heart this protest.

A full index is given, and a most useful bibliographical list of references.

E. SIDNEY HARTLAND.

ALKALOIDS.

Die Pflanzen-Alkaloide. By Jul. Wilh. Brühl, Professor in the University of Heidelberg, and Eduard Hjelt and Ossian Aschan, Professors in the University of Helsingfors. Pp. xxii + 586. (Brunswick : Friedrich Vieweg und Sohn, 1900.) Price Mk. 14.

THE progress that has been made in the rapidly developing fields of organic chemistry can be best estimated when recognised authorities, such as the authors of the present volume, furnish chemists with special monographs dealing with those groups of compounds in which the writers can lay claim to an expert knowledge. As a class the vegetable alkaloids, which are dealt with in this volume, are of exceptional interest, not only on account of their wide distribution as natural products, but also because of their remarkable physiological actions. It is interesting to note, in reading through this admirable summary of the existing state of knowledge in this branch of chemistry, what great strides have been made towards a more definite conception of the structure or "constitution" of the molecules of these compounds within the last few years. At the present time, the synthetical achievements in this field are not numerous. The first complete synthesis of an alkaloid was that of coniine by Ladenburg in 1886, followed soon after by the synthesis of trigonelline by Hantzsch and Jahns. The latter chemist succeeded in synthesising arecoline in 1891, and the synthesis of piperine from

piperidine and piperic acid by Ladenburg and Scholtz in 1894 may be said to complete the list of total syntheses thus far accomplished. But several partial syntheses have to be recorded, viz. aconitine from aconine and methyl benzoate, cocaine from ecgonine and benzoic anhydride ; and one step towards the synthesis of hydrastine was made in 1895 by Fritsch.

The effect of this more intimate knowledge of the chemical constitution of the alkaloids is evident in the classification adopted in the present work. It is, in fact, now possible to refer large numbers of these compounds to different groups, each group having a well-known organic base as its parent form. Every one of the four parent compounds, viz. pyrrolidine, pyridine, quinoline and isoquinoline, are, it may be of interest to point out, capable of being completely synthesised. A brief sketch of the mode of treatment will enable our readers to form an idea of the value of this monograph by Prof. Brühl and his colleagues.

The introductory chapter deals with the history, distribution, preparation and properties, modes of decomposition, synthesis, physiological action, detection and estimation, and other general considerations relating to the group as a whole. This is followed by the chapter on the alkaloids of the pyrrolidine group, which comprises the hygrines and cuskhygrine. The second chapter contains an account of the alkaloids of the pyridine group, the latter comprising twelve subdivisions trigonelline, the jaborandi alkaloids, areca alkaloids, conium alkaloids, piperine, chrysanthemine, nicotine, solanum bases such as atropine, hyoscyamine, tropacocaine, madragorine, &c. ; the alkaloids of coca, the alkaloids of pomegranate root-bark, sparteine and cytisine. The third chapter comprises the quinoline group, and, although divided into only two subdivisions, is very rich in individual compounds, since it includes the very numerous cinchona alkaloids and those of the plants belonging to the genus *Strychnos*. In the fourth chapter, the authors treat of the alkaloids of the isoquinoline group, comprising more than twenty opium alkaloids, hydrastine and canadine, and the alkaloids of *Berberis* and *Corydalis*.

The four chapters, the contents of which have been briefly referred to, deal with those alkaloids which are susceptible of chemical classification by virtue of our knowledge of their constitution. Whether with the progress of chemical science any or all of these formulae may not require modification—and many of them are confessedly but tentative—does not affect the main question as to the atomic complexes from which the various alkaloids are derivable, and the reference of a particular alkaloid to any one of the four groups may be looked upon as a definite allocation of the compound with reference to its parent complex, whether the latter is genetically connected with its derivative by actual laboratory processes or whether the connection has only been inferred by indirect methods. The remaining alkaloids, which are distributed through the sixteen subdivisions constituting the fifth and last chapter, are, however, classified botanically rather than chemically, since their chemical constitution is unknown and only empirical formulae can at present be assigned. Thus we